Toru Hamayasu's Presentation at the Chamber Meeting on June 21, 2005

Rail projects – Background and Conclusions

There were several rail studies done from 1967 to 1992. All concluded a grade separated fixed guideway system was warranted for Honolulu's primary urban corridor.

Did you know that the nation's first Alternatives Analysis was done in Honolulu in 1976? The federal transit agency did not issue the first guidebook for an AA until 1984. Honolulu has issued three AA/DEISs since that time.

The 1976 study was for a rail. The 1990 study was for an automated fixed guideway system, and a design and build contract was issued in 1991. A firm fixed price contract was awarded for $1.76 billion to construct a steel wheeled system from Waiawa interchange to UH at Manoa.

The most recent AA was in 2000. A Bus Rapid Transit or BRT was selected for a reason – the BRT was an enhanced bus system. To keep the cost low, buses were to run on zipper lanes and dedicated lanes so they would not be slowed by congestion. It was the only system that could be done for less than $300 million of local money. The $300 million ceiling was determined as the maximum without additional revenue sources. A rail system was beyond the reach.

Now in 2005, there is a concerted willingness to establish a funding mechanism to raise the City's revenue to pay for a more effective system than just buses.

Lessons Learned

We learned a lot from the past studies.

To provide a true rapid operation, a grade separation is essential. An underground system would cost as high as ten times more than an elevated system because of our sub-surface conditions. Underground water poses an engineering challenge but it was not the biggest problem. Varying soil conditions requiring constant changes of drill bit was the primary reason for the high cost.

We know an elevated system can be built in this corridor. We know that a computer simulation shows that there would be a lot of riders on the system. The 2005 ridership forecast was 185,000 daily riders on the rail. We know a grade separated system from Kapolei to UH Manoa would cost over $3 billion based on the actual fixed bid price, adjusted for inflations.

There has been a talk of $2.6 billion estimate for the system from Kapolei to Iwilei. That is not an engineer's estimate. It was a very rough estimate done by the State. That should not be used as the base for the future cost comparison.

Still yet, $3 billion is a lot of money. Federal fund to offset the cost would be a good thing. There was a federal

authorization of $618 million for Honolulu in 1992. That money is gone but it is not unreasonable to expect the federal participation to be up to $1 billion. Phoenix received $600 million this year for their $1.3 billion system. So you know the speculative ceiling of $500 million is not absolute. I am not saying we will receive $1 billion. I am saying what the FTA told us that it is possible.

A negotiation for the federal funding for construction by the federal process would not occur for several more years, but we know we need to generate over $2 billion as the local share.

Why is investing on a rail a good idea

It should be obvious that we must make the best use of our limited space and resources. In a real world, given a same space, a rail system can carry more people more efficiently than any other mode of transportation.

Contrary to the anti-transit people's claim, transit ridership is not declining. The American Public Transportation Association reports that transit ridership has risen since 1996. According to the Bureau of Transportation Statistics, the growth rate in trips on transit actually increased more than the growth rate in automotive trips for the past 6 years. The transit trips in 2000 reached the highest point since 1959 and the ridership has been increasing since 1995.

Since 1980, light rail systems in Dallas, St. Louis, Portland, San Francisco and Sacramento increased the total transit ridership ranging from 14.5% to 75.8%.

From 1990 to 2000, the national transit commuters on rail actually increased according the 2000 US Census. What declined most were commuters by foot and carpool. If the census data are to be used as the guide for the future investment, investing on High Occupancy lanes for carpoolers does not make sense.

The Texas Transportation Institute's 1999 Annual Urban Mobility Study shows the greatest increases in congestion have been in areas that do not have rail transit. Transit, or more specifically rail, systems are making the difference in slowing down the congestion in many cities.

There are specific examples of the cities that reduced the congestion. St. Louis reports that 12,500 cars were removed from the daily rush hour traffic by the MetroLink line. In Portland, the drive alone trips decreased 60 percent while the transit ridership increased from 13 to 20 percent. The Texas Transportation Institute study reported that 12 out of 13 cities with rail showed less increase in traffic congestion than those cities without rail.

One interesting side bar – home cities of known major transit critics are actually developing or expanding the rail system.

Wendell Cox is a well-known anti-rail advocate – St. Louis opened a light rail in 1993 and there have been two extensions, a third is under construction.

Robert Poole of Reason Foundation, and Peter Gordon and Harry Richardson are with USC in LA – LA has built and expanded Red Line, Blue Line, Green Line, Gold Line and MetroLink commuter rail.

Randal O'Toole, Thoreau Institute and American Dream Coalition – Portland Max has been extended 3 times and another extension is under design.

Why not a HOT lane?

Not cheap or simple as Slater says.

A 12-mile HOT lane could cost $2 to $3 billion based on today's construction cost. This is based on $500/sq ft. for 40-foot wide viaduct and a few ramps for access.

HOT lanes elsewhere cost as much as $8 per use one way. That's $2000 per year per vehicle.

Highway does not relieve congestion – it increases congestion.

Those who advocate building more highways should look into technical studies that concluded that building more roads is not the way to reduce congestion. One study, published by the UC Berkley, states, "adding lane-miles

does induce substantial new traffic…with so much induced traffic, adding road capacity does little to reduce congestion…"

Other study titled "Policy and Planning as Public Choice: Mass Transit in the United States" states, "highway improvement projects to accommodate fifteen years of traffic growth are choked with congestion in far less time."

A Transportation Research Board report states, "an expansion of 1 percent to an existing capacity of 1,000 lanes miles…would reduce (congestion) by one-eleventh of a percent on freeway…"

The Office of Technology Assessment estimates the annual subsidy for car users ranges from $0.4 to $1 trillion and it did not reduce congestion.

So the facts are simple, we must be smarter than building more highways.

Some other facts about the rail proposal:

Studying a rail system's feasibility is the primary reason for conducting the AA/DEIS. The City has not decided to implement the rail system but there is a strong interest to move toward building a rail system. The AA/DEIS will investigate if a rail is a cost effective investment and the City Council will decide whether to proceed with the rail or some other transit improvements.

A rail system to serve the 25-mile corridor from Kapolei to UH at Manoa will be studied along with the No-Build and Transportation System Management (TSM) alternatives. The TSM alternative includes various bus enhancements and localized traffic improvements that would provide the higher level of transit efficiency without major cost investments.